

The Myths of Healthy Eating Part II **Scott Kustes**

Introduction

In The Myths of Healthy Eating Part I, I touched on three of the great myths pervasive in nutritional dogma: grains are healthy, soy is healthy, and vegetarianism is healthy. The unfortunate reality is that little of what passes for nutritional wisdom in America is good advice. In this follow-up, I'm going to touch on the demonization of red meat, fat, saturated fat, cholesterol, and the "deadly" low-carb diet. I'm also going to cover the exciting topics of dairy and calcium intake.

Red Meat Causes Colon Cancer (And Many Other Maladies)

Red meat has been the unwitting participant in the marketing agendas of industries ranging from pork to soy and has been vilified by vegetarians as being inherently unhealthy, perpetuating myths that have no basis in reality. One of the ills that red meat is said to cause is colon cancer. As usual though, the data and studies supporting such assertions are inconsistent or show a negative association.

For instance, the Weston A. Price Foundation reports that "Colon cancer was also tied to beef in an erroneous interpretation of the National Cancer Institute Japanese-Hawaiian study which actually showed macaroni, green beans and peas to have higher risk associated with colon cancer than beef or lamb."¹ Along with that, Argentina has higher beef consumption and lower rates of colon cancer than the US.² Finally, Mormons, who are meat-eaters, have shown lower rates of colon cancer than vegetarian Seventh Day Adventists.³

Several other juicy tidbits from the WAPF site cast further doubt on the links between red meat and colon cancer. Sally Fallon and Mary Enig report that "A 1997 study published in the *International Journal of Cancer* found that increased risk of colon and rectal cancer was positively associated with consumption of bread, cereal dishes, potatoes, cakes, desserts and refined sugars, but not with eggs or meat."^{4,5} In that same article, Fallon and Enig report on numerous other inconsistencies in the data, such as no association between meat and colon cancer in Europe, but a positive association in the United States.

The discrepancy between Europe and the US indicates that there's probably something different in the way meat is raised or processed. One key is that there is no delineation between unprocessed red meat and processed meats, such as sausage and bologna; it is all merely "meat." Yet even amongst unprocessed meats, there are differences based on the way the animal was raised – grass-fed or grain-fed. Grass-fed meat contains conjugated linoleic acid (CLA), which is a powerful anti-cancer agent. CLA is formed in the stomachs of ruminant animals (those with a rumen, e.g., cows and sheep) eating grass, but not grain. Further, heterocyclic amines (HCA) are formed when meat is cooked at high temperature. So frying, broiling, and barbecuing cause the greatest HCA formation, while oven roasting and baking create fewer due to lower cooking temperature. Well-done meats contain more HCA than do rare and medium-rare meats.

Simply implicating red meat is another simple solution to a complex problem. Hell, the data doesn't even fully support dietary fiber, which we're all told is one way to decrease risk of colon cancer. Some studies show a positive relationship⁶, while others show no relationship⁷. Humans have been eating meat and animal fat for thousands of generations, yet osteoporosis, kidney disease, heart disease, and cancer are primarily 20th century diseases.⁸ Something just doesn't add up there.

The Low Fat Diet Will Keep You Healthy

Another myth that is ever so slowly being transformed is the notion that eating fat is unhealthy and will make you fat. The basis of this mistaken idea is that fat has nine calories per gram, while carbohydrates and protein have only four calories per gram. Since most protein sources contain some level of fat, cutting fat means cutting protein by necessity, unless one wants to consume a great deal of soy (see Part I to find out why that's a bad idea). So the Food Guide Pyramid was developed around carbohydrate sources, with protein and fat making up only a relatively small portion of calories. In fact, the Food

Pyramid is 50-65% carbohydrate, 15-20% protein, and 20-30% fat. Yet, with two-thirds of America overweight or obese, obviously something isn't working.

Gary Taubes, in his article *The Soft Science of Dietary Fat*, points out all of the political maneuvering that took place getting these recommendations in place.⁹ Of the five trials conducted to prove that fat was bad, four of them showed no effect at all and the fifth showed that eating less fat may shorten lifespan. Notice I said the five trials conducted to prove that fat was bad. Politicians, the press, and a few members of the public decided that fat was bad, and then left the science to catch up. Basically, the same lies and half-truths were repeated until enough of the public bought it; once that happens, science and logic don't stand a chance.

One problem is the overly simplistic "calorie is a calorie" mentality that focusing on fat's nine calories per gram instills. I will touch on this in greater detail in two sections, but basically, focusing solely on calories completely negates the hormonal environment of the body and assumes that the body is just a thermodynamic engine, burning all calories with equal efficiency. Another problem is the mistaken hypothesis a) that fat raises cholesterol and b) that cholesterol is bad. It's the second part of that hypothesis that causes problems and I will touch on that later in this document.

So let's examine the good things about fat consumption. First, as I've mentioned previously, certain vitamins (A, D, E, and K) are known as fat-soluble vitamins. As opposed to water-soluble vitamins (such as B and C), fat-soluble vitamins require fat to be properly absorbed and assimilated. Vitamin A is only available in animal fat, which could explain why vegetarianism is associated with blindness.^{10,11} Vitamin A is also necessary for the utilization of protein and production of testosterone.¹² So not only is fat necessary for proper nutrient balance, meat is necessary to ensure all vitamins are available to the body. Studies have shown that full-fat dressings provide better absorption of carotenoids (vitamin A) than do reduced- or fat-free dressings.¹³

The brain and nervous system are composed of about 60% fat. This fat is incorporated into the myelin sheaths that insulate the neurons. These fats are the long-chain fatty acids that are not available in plant foods.¹⁴ Our cell walls are composed of these same fatty acids. We can consume copious quantities of short- and medium-chain fatty acids and let our body convert 5-10% to the usable long-chain acids or we can let ruminant animals take care of the conversion and eat the ruminants. In addition, low intake of healthy saturated fats and high intake of omega-6 fatty acids results in lowered conversion rates. Vegetarians tend to consume high quantities of omega-6 from grain and vegetable sources and because of their focus on "health" and the dearth of meat in their diet, their saturated fat intake is very low.

A low-fat diet is by default going to be low in essential fatty acids (EFA), those omega-3 and omega-6 fats that we hear so much about. A lack of essential fatty acids can have numerous consequences. Women of reproductive age have a very high need of the long-chain EFAs eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). A deficiency of these fats can cause trouble with reproduction and lactation and even mild deficiencies can cause issues with fetal growth.¹⁵ As EFAs are so important for proper brain development, it should come as no surprise that deficiency is linked to ADD/ADHD. Numerous other problems have been tied to omega-3 deficiency as well, including dyslexia, depression, weight gain, eczema, arthritis, and diabetes.¹⁶

Another part of the Low Fat Campaign has been a change in the way meat is consumed. Today, we eat a lot of muscle meat, always trimmed of the fat, and very few people in Western society have ever had organ meat. Organ meats are considered dangerous because of their fat content and modern humans have lost the taste for them. On the contrary, indigenous tribes went out of their way to eat fat and organ meats, even going so far as to eat only the organs and leaving behind the muscles when meat was plentiful. According to Fallon and Enig, "most prized was the internal kidney fat of ruminant animals, which can be as high as 65 percent saturated."¹⁷ In fact, these groups also eat the brains and bone marrow, both very rich in fats. When meat is scarce and these people are forced to eat small animals, such as rabbit, the leanest animal in North America, they develop "rabbit sickness", or fat-hunger, with its associated diarrhea, headache, and discomfort.

Oddly, no cases of cancer or other degenerative diseases are found amongst tribes living in traditional ways. Some say that it must be genetic, however, when these groups are “civilized” and brought into our modern Western society with our abundance of sugar, low-fat foods, vegetable oils, and hydrogenated fats, they have no problem developing obesity, diabetes, arthritis and other autoimmune disorders, cancer, and heart disease. Of course, tribal cultures did eat plenty of plant matter, but it too was prepared much differently than modern Western societies prepare it. Grains were fermented to neutralize antinutrients and release B vitamins. Many other foods were dried or fermented.

Fat is also implicated as one of the causes of cancer (along with red meat, apparently). Unfortunately, studies don’t support that contention either. An 8.1-year study showed that a low fat diet did not reduce the risk of colon cancer.¹⁸ Another 8.1-year follow-up study also showed that a low fat diet didn’t reduce the risk of breast cancer.¹⁹ And a 14-year study showed “no evidence that lower intake of total fat or specific major types of fat was associated with a decreased risk of breast cancer.”²⁰

The idea that fat is bad for us holds no weight when considered in the grand scheme of human evolution. Humans have been consuming high fat animal foods for millions of years, prizing the fatty parts of the animals over the non-fatty parts. Further, the nutritional benefits of fat are overlooked by the media and those with those amazing low- and no-fat foods to sell. The purported health risks of eating too much fat, such as weight gain and cancer, simply don’t jive with the available research.

Eat Some Fat, But Run From Saturated Fat

While the Low Fat Campaign is dying a slow death, the campaign against saturated fat is running ahead full-steam. Urged on by diets such as The Mediterranean Diet, which includes copious quantities of olive oil, fresh vegetables, fish and poultry, and wine, saturated fat is further identified as the villain in every ill known to mankind. Of course, singling out saturated fat when The Mediterranean Diet also includes more antioxidants from fruits and vegetables and likely a higher quantity of essential fatty acids from fish intake, along with a low polyunsaturated fat intake due to the high monounsaturated fat intake (olive oil), is irresponsible and mathematically illogical, but that has never stopped anyone before.

One reason for the idea of saturated fat being bad for you is that it is said to raise cholesterol levels. Naturally, this requires a belief in the Anti-Cholesterol Campaign (lots of these campaigns huh?), which I’ll touch on in a few sections. However, let’s run through the evidence anyway. Monounsaturated fats tend to raise HDL – the so-called “good” cholesterol – while polyunsaturated fats tend to lower LDL – the so-called “bad” cholesterol. Saturated fats on the other hand raise both LDL and HDL, making them, at worst, neutral. *Trans* fats, the wholly unhealthy, unnatural man-made fat, raise LDL and lower HDL. Supposedly, saturated fat clogs our arteries. The truth, however, is that “the fatty acids found in artery clogs are mostly unsaturated (74%) of which 41% are polyunsaturated.”²¹ Further, saturated fat intake is associated with less atherosclerotic progression, while carbohydrate intake is associated with more.^{22,23} Again, I’ll weigh in on the cholesterol hypothesis below and hopefully show you why this paragraph should’ve been unnecessary.

Coconut oil and coconut milk, which consist of over 80% saturated fat, have potent anti-viral, anti-fungal, and anti-microbial effects. These properties have implicated it as a treatment for AIDS and candida.²⁴ Further, populations that consume a great deal of coconut oil are found to be free of heart disease, which saturated fat is said to cause. Coconut is rich in lauric acid, which is converted to monolaurin, a potent anti-viral substance, in the body. Coconut is even richer in lauric acid than is human breast milk. The other tropical oil, red palm oil, is rich in vitamins A and E and coenzyme Q10.²⁵ Somehow cultures that rely on palm oil for the bulk of their energy needs are also strong, healthy, and heart disease free.

Sally Fallon and Mary Enig discussed in a 1996 article how saturated fats facilitate the conversion of essential fatty acids into prostaglandins, which help the body regulate functions such as metabolism and blood pressure.²⁶ Fallon and Enig also point out that studies have shown saturated fats, such as tropical and animal fats, to be protective against osteoporosis and cancer of the intestinal tract.^{27,28} However, high *trans* fatty acid and polyunsaturated acid intakes have been shown to be causative factors for cancer, heart disease, and atherosclerosis.²⁹

For so long, we've heard that butter is bad for us and that man-made margarine is a proper replacement. Again, the logic doesn't bear this out. Butter is a wholly natural substance, with an ingredient list of "cream, salt", while one particular popular margarine has an ingredient list that reads like a chemistry experiment – "Liquid soybean oil, partially hydrogenated soybean oil, water, whey, salt, vegetable mono- and diglycerides and soy lecithin (emulsifiers), potassium sorbate and sodium benzoate (to preserve freshness), artificial flavor, phosphoric acid (acidulant), vitamin A palmitate, colored with beta carotene (source of vitamin A)." I think the only things they forgot are the wing of bat and eye of newt. If you go to the dairy aisle of your grocery store, you'll find very little in the way of butter, but about 20 different kinds of margarine. With pressure on to reduce *trans* fats, margarine manufacturers are cutting down on the hydrogenated oils, but be assured that margarine is still man-made and man has yet to improve on Mother Nature through chemistry.

If saturated fat is the culprit behind all of society's ills, then saturated fat intake must have risen in the past century as more and more Americans have become diseased, right? Unfortunately, the statistics show that butter consumption is less than 1/3 of what it was in 1900 (5lbs vs 18lbs per person per year).³⁰ Further, Americans surgically trim all fat and skin from their meat and chicken. What has increased is the consumption of fake foods, rife with sugar, highly processed carbohydrates, man-made *trans* fats, and vegetable oils. How then can we implicate saturated fat as the culprit, especially when fat intake has been reduced from 40% to 33% (possibly lower now since this is 1996 data)?³¹

Dr. Weston Price noted that as Western foods made their way into the diet of the Maasai hunter-gatherer tribes in Africa, they began to develop high blood pressure.³² These Western foods, such as sugar, white flour, and vegetable oils, replaced the traditional foods that the Maasai ate, like porridge made from whole grains and palm oil. There has also been a noted increase in the prevalence of tooth decay, diabetes, and crooked teeth. The same trends have been noted amongst Australian Aborigines.³³ These Aborigines made sure to hunt animals when they were at their fattest so as to assure an adequate dietary fat intake.

As a side note, a recent study reported that "One High Saturated Fat Meal Can Be Bad."³⁴ Unfortunately, once again, the study authors and the media have ignored the real data to arrive at their own conclusions. Both Chris Masterjohn³⁵ and Anthony Colpo³⁶ have written articles explaining why the author's of this study have arrived at an erroneous conclusion, which the media gladly jumped on and blew even further out of proportion. Supposedly, the conclusion is that a meal high in saturated fat 1) inhibits the ability of blood vessels to dilate (flow-mediated dilation) and 2) inhibits the ability of high-density lipoproteins (HDL) to exert their anti-inflammatory properties.

The reality is that conclusion number 1 is merely an example of "regression to the mean" because the group consuming the coconut oil (saturated fat) meal had a higher flow-mediated dilation to begin with. Flow-mediated dilation is a measure of the ability of the artery to expand and contract to accommodate blood flow. Looking at the results in a different way, the group fed the coconut oil had a higher flow-mediated dilation throughout the entire study, regardless of a greater decrease after eating. Much as a person with \$50,000 invested in stocks experiences a greater absolute decline from a market bust than a person with \$10,000 invested, the coconut oil group, by matter of chance in the random selection, had further to fall – merely an example of regressing to the mean. The authors even admitted as much, but this caveat never saw the light of day; it wouldn't have supported the politically correct notion of saturated fat being bad.

Conclusion number 2 requires a large leap of faith to assume that cells in isolation in a Petri dish mimic the complexity of the human organism. As Masterjohn points out, "The researchers could have directly measured the levels of ICAM-1 and VCAM-1 in the subjects' blood, but that is not what they chose to study." Further "the researchers *only* studied the anti-inflammatory potential specifically of HDL" as opposed to testing the total anti-inflammatory capabilities of the blood. The key could be the difference in the vitamin E contents of the two oils, with safflower oil being 50+ times as potent. This is an untested hypothesis as is that the result was due to the saturated fat content of the meal. However, one of those untested hypotheses supports what the public wants to hear and the other leaves the issue unsettled.

The researchers also won't tell you that polyunsaturated oils such as safflower increase the body's need for vitamin E. Another caveat could be that the researchers didn't even measure inflammation in the subjects prior to running this test, so there could be more random sampling error such as that seen in the first conclusion.

So given that saturated fat is more stable than unsaturated fats, vastly so when compared to polyunsaturated fats and that saturated fats do not require any form of processing to remain stable, it seems that saturated fats are far better than polyunsaturated fats and at least as good as monounsaturated fats. Saturated fats contain many of the vitamins that are necessary for proper bodily function, while polyunsaturated vegetable oils must be scrubbed and deodorized to cover their rancidity. Let's also think about the logic of saturated fat being bad. There are three types of fat that occur naturally (*trans* fats being the unnatural fat). Supposedly we are to assume that one that is prevalent in all of the foods that man evolved by eating is bad for us? So Mother Nature/God/Allah/Zeus/The Flying Spaghetti Monster decided to give us three types of fat, but just for kicks made one of them a killer? If you believe that, I've got some beach-front property in Arizona for sale.

A Calorie is a Calorie

We have all heard the news that we should reduce calories in order to improve bodyweight. Unfortunately, this is an overly simplistic way of looking at the body. The low-fat diet is based largely on the fact that a gram of carbohydrate contains fewer calories than a gram of fat: four vs. nine. The signs in the grocery store bread aisle read "Gram for gram, carbohydrates contain fewer calories than fat." While true, this statement is terribly misleading. "A calorie is a calorie" thinking assumes that the human body is a perfect thermodynamic engine; that is, it assumes that all calories are burned the same within the body regardless of their source. It also negates the fact that the hormonal pathways of processing the three macronutrients – carbohydrate, protein, and fat – are different.

The assumption that "a calorie is a calorie" means that a person following a 2,000 calorie per day diet could eat 2,000 calories of Twinkies or 2,000 calories of lettuce or 2,000 calories of chicken all with the same effects. I'm willing to bet that the person eating only Twinkies would not fare as well as the person eating lettuce or chicken.

We need to consider the "Thermic Effect of Food." The Thermic Effect of Food is the way in which a gram of protein, carbohydrate, or fat changes the metabolic rate. Basically, it takes the body twice the energy to break down a gram of protein as to break down a gram of carbohydrate or fat. This means that the gram of protein may report to the stomach with four calories, but following digestion and, taking into account the energy used to break it down, only about 70% of those calories are available. Fat has a thermic effect of about 3%, meaning a net gain of 97% of the calories in the fat you eat, while carbohydrates have a thermic effect of 5-10%.³⁷ As you can see, different macronutrients affect the metabolic rate in different ways.

So based on the Thermic Effect of Food, it appears that restricting fat is a good idea since protein and carbohydrates cause a greater increase in the basal metabolic rate. However, this ignores the very real, very important hormonal effects of food. There is a simple reason that low carbohydrate diets work and work well: restricting carbohydrates decreases circulating glucose, which decreases insulin, which allows the body to access stored fat. When people think about energy, they think about that which they eat. However, most of us have a *huge* amount of energy stored around our waists (some more than others) in the form of fat.

But how does food affect hormones? In order for nutrients to be shuttled into the muscles, liver, and fat storage of the body, they need help. This help comes in the form of insulin. Insulin is secreted in response to carbohydrates and protein; carbohydrates cause a significant insulin dump, while protein has only a small effect on insulin. A large fat meal can cause an insulin response, but fat is effectively hormonally neutral. The rub here is that when insulin is circulating, the body will not release stored fat. You can see that the carbohydrate-heavy, low-protein, low-fat diet that is commonly touted keeps glucose and insulin levels elevated, which makes losing weight hard without following the starvation diet. So

hormonally, a calorie is not a calorie – some calories (those from carbohydrates) tend to put the body into fat storage mode.

A calorie cannot be a calorie. If all calories were equal, then the macronutrient composition of the diet would have no effect on bodyweight. Studies, however, show this to be absolutely untrue. One study showed that a diet “high in protein and/or low in carbohydrate produced an ~2.5-kg [5.5 lbs] greater weight loss after 12 wk of treatment.”³⁸ Another study points out that “The ideal weight loss diet, if it even exists, remains to be determined, but a high-carbohydrate/low-protein diet may be unsatisfactory for many obese individuals” and that there are metabolic advantages to a low-carb diet.³⁹ Finally, a study from 1957 by Kekwick and Pawan showed that even on a 1000 calorie diet (hypocaloric by any measure), patients on a 90% fat diet (with 10g of carbohydrate) and 90% protein diet (5g of carbohydrate) lost weight, while those on a 90% carbohydrate diet (225g of carbohydrate) lost little or none. Those on the fat diet lost the most, while some of those on the carbohydrate diet actually *gained* weight that they had lost on the fat or protein diets.⁴⁰

“A calorie is a calorie” is dying a slow, painful death. Many in the nutrition field refuse to let go of this trite and worn out way of thinking despite mounting evidence that it just isn’t true. In fact, just altering the level of omega-3 fats in the diet changes body composition.⁴¹ To steal a phrase from John Berardi, “A fat isn’t even a fat, let alone a calorie a calorie!” This isn’t free license to eat all the protein and fat you want, ala Atkins, but it does illustrate that simply replacing “high-calorie” fat with “low-calorie” carbohydrates or protein doesn’t work by the simple mechanism hoped for.

Low Carbohydrate Diets are Unhealthy

One of the most pervasive of nutritional dogma is that the low carbohydrate diet is inherently unhealthy and will lead to an increase in your blood cholesterol levels, put your body into a “dangerous” ketotic state, and cause you osteoporosis due to the high protein intake. That most of the charges leveled against low-carb eating are false is irrelevant; dammit, we have an agricultural industry to protect! The Food Pyramid recently underwent a minor revamping process, allowing for personalization based on age, sex, and activity level. For instance, according to the Pyramid⁴², I should consume 10 ounces of grains, 4 cups of vegetables, 2.5 cups of fruit, 3 cups of milk, and 7 ounces of meat and beans (trimmed of the fat of course).

Let’s explore those recommendations. Meat is the smallest category on the menu, and it is sharing those precious few ounces with beans. I am supposed to eat 1.5 times more grain than meat and more than 3 times more milk than meat. Oddly, from a caloric perspective, I am also supposed to eat more grains than either fruits or vegetables. This is a high carbohydrate diet to be sure, with at least 60% of daily calories coming from carbohydrates. Unfortunately, it’s the same diet that has helped America balloon such as it has in the last several decades.

The low-carb diet, popularized by Dr. Robert Atkins, is of course labeled as a fad diet. Of course, if by fad you mean it (the low-carb diet, not the Atkins Diet) has only had over a million years of adherence, you’re right. For all but the last eight to ten thousand years of human evolution, we have lived on a high fat, moderate protein, low carbohydrate diet. If it’s so unhealthy, why are hunter-gatherer populations living in traditional ways with lots of animal protein and fat and enough vegetable and fruit matter to get by vastly healthier than those following a Western diet? There is no evidence of heart disease, diabetes, or cancer, and relatively little in the way of tooth decay, in these populations. In fact, tooth decay is only seen in those groups consuming the most carbohydrates.

For instance, we have the Eskimos (Inuit), who ate a diet that was nearly 100% fat and protein. While I wouldn’t necessarily advise one to undertake such a diet, the Eskimos are notoriously healthy, such that confused nutritionists call their diet and health the Eskimo Paradox.⁴³ This diet was based on whale and seal meat and, most importantly, blubber, as well as caribou, elk, and other foraging animals and any plant matter left in their intestines. The Eskimos made sure to eat every part of the animal, including organs, eyes, bone marrow, brains, and stomach. By consuming the organs and blubber, which are rich in fat-soluble vitamins and other vitamins, such as vitamin C, the Eskimo groups were able to thrive on a

diet nearly void of fruits and vegetables. Only in the short Arctic summer were these hunter-gatherers able to find a few berries.

So while Eskimos illustrate that a very high fat, high protein, no carbohydrate diet can produce excellent health, we must remember that Dr. Weston A. Price found groups consuming a mixed diet to be healthier than their meat-eating counterparts, who were in turn healthier than mostly vegetarian societies.⁴⁴ That fruits and vegetables are helpful when it comes to healthy eating is not a question. That high intake of grains is helpful is questionable. Hence, one can consume prodigious quantities of green leafy vegetables, cruciferous vegetables (broccoli, cauliflower), and other such nutrient-dense, low glycemic vegetables, along with a decent bit of fruit and some starchy tubers and roots (squash, sweet potatoes), while maintaining a low carbohydrate intake.

At the beginning of a shift to a low-carb lifestyle, the body undergoes what is known as a “metabolic shift”. This “shift” is when the body converts from mainly sugar (glucose) burning to mainly fat burning and can be an incredibly uncomfortable period characterized by sluggishness, fatigue, and general “fogginess” of the brain. The body can store only a very limited supply of carbohydrates. Each muscle can hold its own store of glycogen, which the body converts to glucose for use, and the liver holds a store of glycogen that is accessible to the whole body. Once these stores are full, the body shuttles any additional carbohydrate into fat storage. If you look around you at the grocery store (or anywhere else where you see other people), it is incredibly obvious that there is no limit on the amount of fat the human body can store.

I discussed in the last section how insulin affects the release of stored body fat. A bit of simple logical analysis shows why the standard high carbohydrate diet keeps the body from liberating stored fat for use as energy. The bodies of most people are excellent at utilizing carbohydrates, but not very good at utilizing fat due to the high carbohydrate diet. The body downregulates unnecessary enzymes, including those involved in fat metabolism, when they are unneeded. Eating a high-carb, low-fat diet is one of those times when fat enzymes are not highly utilized.

The hardest part of following a truly low carbohydrate diet, such as that of Dr. Atkins is the mental aspect of giving up all of those comfort foods. A diet such as The Atkins Diet eliminates pasta, bread, sweets, desserts, and other sugary concoctions. After the metabolic shift, the body actually thrives on a ketogenic diet. For one, the brain is very happy running on ketones once the body enters ketosis.⁴⁵ This contributes to the protein-sparing (anti-catabolic) effects of a ketogenic diet; that is, the body won't burn through your hard-earned muscle to convert its protein to glucose through gluconeogenesis. Many people note that they have more energy on a ketogenic diet, do not experience the hunger normal with hypocaloric diets, and do not experience blood sugar swings, such as that you get after eating a pasta dinner.

A few other positive aspects of the ketogenic diet are improvements in renal (kidney) function,⁴⁶ glycemic control,⁴⁷ and dyslipemia⁴⁸ (or hypercholesterolemia) if one is concerned about high cholesterol levels, not to mention weight loss.⁴⁹ The four studies just referenced also point out that concerns about cardiovascular harm arising from high fat dieting are misplaced.

Many of the critics of low-carb diets point out that they induce an unnatural, unhealthy, potentially deadly condition called ketosis. These critics are confusing ketosis with ketoacidosis. Ketosis is a natural condition characterized by higher than normal levels of ketone bodies from fat metabolism. Ketoacidosis is the potentially deadly complication, which only affects diabetics, characterized by very high blood glucose levels *and* high levels of ketones in the blood. This situation can only arise in the presence of insulin resistance, or diabetes. Before the creation of world-wide distribution networks and the availability of year-round plant foods and ubiquity of sugar, every human would have experienced periods of ketosis during the period of the year that plants were not fruiting. Periods of ketosis are absolutely physiologically normal, hence why the body has the mechanism for inducing such a state.⁵⁰ If ketosis were so dangerous, it would seem that those incredibly healthy Eskimos wouldn't be so healthy.

So now with all that said, I do not recommend The Atkins Diet. Atkins is not overly concerned with food quality, focusing mainly on macronutrient intake. In fact, according to the Dr. Atkins New Diet Revolution,

pork rinds (fried pork fat) are mentioned as substitutes for potato chips. Further, Atkins throws out the proverbial baby with the bathwater, eliminating nearly all fruits and vegetables. While Atkins is great for short-term, quick weight-loss, a Paleolithic-style Diet is a much better long-term option focusing on full-fat grass-fed meats, free-range poultry and eggs, wild-caught fish, vegetables, fruits, nuts, seeds, saturated oils such as coconut and palm oils, and a bit of starchy tubers, while excluding grains and dairy.

Of course, a mention of a Paleolithic Diet brings up the argument that “our ancestors only lived to be 35 years old.” This argument assumes that early death was a result of subpar health. In dismantling this argument, we should first recognize that 35 years was the *average* life expectancy for our ancestors. If you recall from statistics class, an average is approximately the middle of a range of numbers, assuming that there are no extreme outliers (which in the case of age would be centenarians). So that alone means that we’re dealing with a range of approximately 0 to 70 years old.

The 20th century saw vast improvements in life expectancy which are most certainly not attributable to improvements in what we eat. If we look back just a little over a century ago to 1900, we see that average life expectancy at birth was only 47 years old.⁵¹ Looking around, it is obvious that we aren’t any healthier, yet we are living, on average, 50% longer. What gives?

The first answer to that dilemma is medical treatment, which enables people to survive things that would’ve killed them just a century ago, not to mention 50,000 years ago. For instance, today we can survive gunshots, knife wounds, falls from height, degenerative diseases, and broken bones due to medications and excellent surgical techniques. Parasites and infections that would’ve killed 200 or 2,000 or 20,000 years ago are now easily treated by doctors. A broken leg would’ve made a person a target to rival tribes as well as predators searching for dinner. Today, humans are not prey. The second answer is sanitation. It wasn’t too long ago that we lived amongst our waste, which is a breeding ground for the parasites and bacteria that we can so easily kill these days.

There is also a huge difference in the lifestyle led by hunter-gatherers and that led by modern Westernized humans. Basically, no one in modern culture has to worry about their dinner baring its claws and teeth and being turned into dinner themselves. Hunter-gatherers fought daily with animals that were bigger, stronger, and better equipped for killing than are humans with our lack of claws and fangs. Today, we go to the grocery store and pick up our steak or roast. Even modern hunters have little worry of being killed by their prey with their high-powered rifles and shotguns. Today, few people in modern societies have to worry about starvation, yet it was an ever-present reality amongst indigenous peoples.

We must also look at the infant mortality rate. While I don’t have data for 50,000 years ago, a few assumptions make it easy to see how medical improvements have vastly increased our average age by improving the number of people surviving to age 5 and beyond. In the year 2000, 99.3% of all babies reached age 1; in 1900, only 87.5% of babies reached age 1.⁵² In 2000, about 99.2% of all babies reached age 5; in 1900, that percentage was only 81.8%. Seeing the huge leaps in just 100 years, it isn’t out of the question to assume that (conservatively) at least 25% of all babies born in the Paleolithic era did not reach age 5. Given that, we have to assume that at least that many reached beyond age 35. In fact, looking at modern day hunter-gatherer tribes we see that many of them reach beyond age 60, well into old-age.

Finally, there is the argument that age 35 was simply too early to acquire the diseases such as cancer and heart disease. This also holds no water as Dr. Cordain points out in his article discussing our ancestral life expectancy.⁵³ Dr. Cordain says it better than I ever could, so I offer this quote: “While chronic degenerative diseases generally produce mortality in later life, they begin much earlier, often in childhood. This allows comparison between age-matched younger members of industrial and technologically primitive societies. Biomarkers of developing abnormality such as obesity, rising blood pressure, non-obstructive coronary atherosclerosis, and insulin resistance are common among the former, but rare in the latter. Measurements of muscular strength and aerobic power reveal similar discrepancies, again favoring individuals whose lives more closely resemble the ancestral pattern. About 20% of hunter-gatherers reach age 60 or beyond, but even in this age bracket, individuals from foraging and other technologically primitive cultures appear almost completely free from manifestations of most

chronic degenerative diseases (osteoarthritis is an exception).” We can see that these diseases do not occur overnight; one is not cancer-free one day and cancerous the next.

Anyway, the short of it is that a low carbohydrate diet is vastly healthier than any high carbohydrate diet could ever hope to be. Our ancestors ate nothing but meat and animal fat, seasonal vegetables and fruits, and nuts and seeds. A low-carb diet is the diet we have evolved to eat and the high carb diet prescribed by the government is at odds with our genetics. Additionally, low carb does not necessarily equal The Atkins Diet. While The Atkins Diet is better than the Food Pyramid, especially for sedentary folk, a Paleolithic Diet such as that laid out above is an even better choice.

Cholesterol is Deadly

I’ve written twice about the evidence that cholesterol is not necessarily unhealthy. First, I laid out some basics about the illogical assumptions that cholesterol is a de facto “bad” substance.⁵⁴ Then, I reviewed an excellent book by Anthony Colpo titled The Great Cholesterol Con,⁵⁵ in which Mr. Colpo pored through study after study, including the exact studies that are used to push the cholesterol hypothesis, and showed why the cholesterol hypothesis is false. Given that the two references above contain a good deal of information, I’ll cut straight to the chase.

Dr. Uffe Ravnskov, author of The Cholesterol Myths,⁵⁶ lays it out thusly: “If we were to believe that a correlation between high cholesterol and heart disease proved that cholesterol *causes* heart disease, using the data from the major studies used to support this idea, we would have to believe:

- cholesterol causes heart disease in men, but not in women
- cholesterol causes heart disease in Americans, but not in Canadians, and protects against heart disease in Russians
- cholesterol causes heart disease if you are between the ages of 30 and 47, but stops causing heart disease once you turn 48⁵⁷

The reasoning is simple. Cholesterol is a necessary component of many structures in the body, including cell membranes and all of the steroid hormones, and plays a key role in regulating blood sugar, building strong bones and muscles, and repairing tissue damage.⁵⁸ The body actually makes about 80% of the cholesterol circulating in the blood, while about 20% comes from the foods we eat. If the body deems that it needs more cholesterol for building the body and dietary intake is too low, it will actually increase production. What this means is that the body is going to determine how much cholesterol it needs to do its job pretty much regardless of one’s diet.

If high cholesterol is a causative factor in atherosclerosis, or hardening of the arteries, then it doesn’t make sense that people with low cholesterol have just as much atherosclerosis as those with high cholesterol.⁵⁹ In fact, the very premise of the cholesterol hypothesis was based on a flawed study by Ancel Keys called the Seven Country Study. Keys devised a hypothesis based on seven countries that showed a perfect correlation between lipid cholesterol and heart disease. The problem with the study is that Keys ignored the data from 16 other countries that didn’t fit with his hypothesis – a classic case of selecting data that fits the message one wants to send.

Cholesterol, as with most substances in the body, operates within an optimal range. Too low and too high are both bad, just as with blood sugar. For instance, amongst males, cholesterol below 160 appears to predispose to cancer,⁶⁰ respiratory and digestive diseases, and trauma. With women, studies show that lipid lowering does no good⁶¹ and that higher may actually be better. And amongst the elderly, higher cholesterol levels are associated with decreased mortality and greater longevity.⁶² Cholesterol actually appears to be protective against infection,⁶³ and high cholesterol is nothing more than an innocent bystander denoting that there could be something awry in the body.

Commercials for cholesterol lowering statins often show arterial plaque deposits such as the ones at [this one](#).⁶⁴ The reality is that arterial plaques are nothing resembling such deposits. Cholesterol does not just roam through the bloodstream looking for a place to roost. First, the artery must receive damage, generally from stress, inflammation, or high circulating insulin levels. Then, cholesterol, red and white

blood cells, and fats rush to the scene to repair the damage.⁶⁵ So while cholesterol may be involved, it isn't the culprit anymore than the ambulance at the scene of an accident is the cause of the carnage.

So if we look at the data logically, high cholesterol is only a risk for middle-aged men in America and is protective or a non-factor for those that don't fall into that group. That indicates that there is something else that is the issue, rather than the cholesterol itself. Cholesterol is just the "alarm" that could indicate an underlying issue. Artificially lowering cholesterol with statins merely shuts down the body's natural defense mechanism and does nothing to the underlying issue that sounds the "alarm", much as reducing swelling in a sprained ankle does nothing to actually repair the damaged ligaments.

Milk – It Does a Body Good

The marketing machine that is the dairy industry has the market cornered on calcium. If you pay attention to the dairy industry's ads, milk equals calcium and if you want calcium (and who doesn't?), you *must* drink milk. Luckily for those of us seeking health, milk is not the only food that contains calcium. Kale and other greens, cabbage, broccoli, asparagus, almonds, and canned salmon (assuming you eat the bones) are other foods that are good sources of calcium without all of milk's attendant problems. Spinach, while high in calcium, is also high in oxalate, which binds to the calcium reducing its bioavailability.

First of all, milk is unnatural from the perspective of evolutionary nutrition. The human animal has been present for some million or so years, yet milk consumption only began with the advent of agriculture 8000 years ago. This is why a great deal of people not of European descent are lactose-intolerant. Up until 8000 or so years ago, human young nursed from their mothers for about the first three years of life. Just as all other animals, at the end of breastfeeding, the human began eating whole foods, which did not include milk. No early human was out there milking wild mountain goats or cows. Similarly, lions, tigers, and bears (oh my!) do not chase down another animal and then drink its milk.

But just because drinking the milk of another species, which is a human-only trait (except when you feed it to your cat), is unnatural doesn't mean it's necessarily unhealthy. Let's not throw out the nutritional baby with the Neolithic (post-agriculture) bathwater. While it's obvious that most of our "nutritional advances" have been to the benefit of population growth, but to the detriment of population health, maybe milk is the one example that holds up.

First of all, while milk is a high-calcium food, it is not necessarily the best source of easily absorbed calcium. A study in 1990 revealed that kale greens actually have a higher calcium absorption rate than does milk, with a mean of 41% versus 32%, respectively.⁶⁶ It's not necessarily what you eat, but what your body absorbs that matters. If you could find a way to pass it right out the other end without being absorbed, you could eat a dozen Krispy Kremes with no ill effects.

All commercial dairy products are pasteurized and homogenized. Pasteurization is the process of heating the milk to a temperature of about 161 degrees for at least 15 seconds to kill off bacteria, viruses, molds, and other organisms. Unfortunately, as Lori Lipinski points out, pasteurized milk also loses a great deal of milk's natural vitamins, such as up to 66% of A, D, and E, 50% of vitamin C, and most of the vitamin B6 and B12 content.⁶⁷ The enzyme lipase, which breaks down fat, is lost, as is phosphatase, which is essential for calcium absorption. Furthermore, pasteurization damages milk's whey protein and fatty acids, reducing their digestibility. Calves fed pasteurized milk often don't survive to maturity. Homogenization involves breaking down the cream in raw milk to keep it in suspension rather than having it form a high-fat cream layer on top, by forcing it through very narrow tubes at high temperature. Because the fat now has more surface area, there is increased susceptibility to rancidity and spoilage.

Milk also seems to be tied to numerous allergies. There is the obvious lactose-intolerance that affects about 25% of the population. But beyond that dairy products promote mucus production⁶⁸ and = are even starting to be implicated in some autoimmune disorders like Crohn's and Irritable Bowel Syndrome.^{69,70} Dr. Mercola lists numerous other health problems that have been associated with milk, such as bloating, iron-deficiency anemia, infant colic, and acne.⁷¹ Dr. Loren Cordain notes that milk increases sebum

production which promotes acne.⁷² The casein protein that makes up 80% of milk's protein content seems to be the culprit in mucus production. When the body overproduces mucus, as in a cold, it means that the body is trying to entrap and rid itself of an allergen or irritant. There are some wonderful recipes for glue made from casein all over the Internet⁷³ and casein can be used to produce paint as well. Eat up!

Raw milk on the other hand contains all of the natural immunoglobins (antibodies), enzymes, and vitamins that are inactivated by heat. Because raw milk still contains the good bacteria that pasteurization kills off, many people that exhibit lactose intolerance to pasteurized milk products can handle raw milk just fine. The bacteria produce the lactase necessary to break down the lactose.⁷⁴ Also, pasteurized milk goes absolutely rancid if you keep it too long; anyone that has tasted bad milk can attest to that. Soured raw milk is, however, used as a treatment for invalids being easily digested with laxative properties.⁷⁵ The good bacteria keep the bad bacteria in check producing a soured milk and, eventually, sour cream rather than putrified milk that is unpleasant to the smell and taste. Unfortunately, it is nearly impossible to get raw milk in the United States. Unless you own a cow or live in one of the few states where it can be sold in stores, you will have to seek out a farmer that sells raw milk. You can find such farmers here: <http://www.realmilk.com/where1.html>. If you listen to the industry, pasteurized milk is second only to arsenic, but people began consuming raw milk many millennia before Pasteur was a twinkle in his father's eye. Properly soured raw milk (i.e., from grass-fed, organic cows) and cheese pose no more threat than pasteurized milk. If I had to rank order the choices, I'd say top of the list is to do without dairy, second choice is raw dairy, and third is pasteurized dairy.

Finally, here is a brief synopsis of Ms. Lipinski's insight into the life of a conventional dairy cow. Dairy cows are subjected to extremely poor living conditions, which include intense confinement in individual stalls, milking machines, and concrete floors. They are forced to produce milk for 10 months of the year through injections of synthetic growth hormones (rBGH), giving an average of 50 pounds of milk per day compared to just 12 pounds per day in 1930. Your typical dairy cow lives an average of 42 months – less than four years! – while a cow on pasture can live for 12-15 years; it is a short, miserable life for a dairy cow. rBGH administration causes cows to have “reproductive difficulties, increased need for antibiotics, digestive problems, enlarged hocks and lesions, and foot problems.” Even the FDA admits that growth hormone injections increase sickness and drug use in dairy cows and the Consumer's Union points out that the increased udder infections from rBGH produce lower-quality milk with more pus and bacteria. Sounds delicious!

A great irony is that few people would drink a glass of chilled breast milk from their own species, yet will consume ice cream, cheese, yogurt, and milk with reckless abandon. Would you drink pig, dog, or horse milk? They are all mammals as well, so why don't we drink their milk. As I said, humans are the only species that consumes the milk of another species and are the only species that consumes milk beyond weaning. This is because each species produces milk that is tailor-made for its young, with all of the necessary growth hormones, fatty acids, proteins, and carbohydrates to ensure proper growth of the young. Milk is a hormone delivery system; cow milk is for cows, pig milk is for pigs, and human milk is for humans.

As an interesting side-note, by not consuming dairy products, you can actually induce lactose-intolerance. I know this because I don't tolerate milk products very well anymore due to my lack of intake. Something about that seems odd given that if I don't eat a carrot for the next year, my body won't down-regulate the ability to digest carrots.

So let's see here. We have poor calcium absorption (the very thing that milk is supposed to be best for), a damaged nutritional profile due to processing, allergenic compounds, pus and bacteria, antibiotics, pesticides, dioxins, possible ties to autoimmune disorders, and high insulin production. Sounds like the perfect food! Beyond that, there is a very strong dairy lobby, which almost always means something is being brushed under the rug to pull the wool over the eyes of consumers. Lastly, any product that is as highly marketed as milk is probably not the tops in nutrition. When is the last time you saw broccoli marketed by sports stars and musicians?

But Won't You Get Osteoporosis?

Ahhh, the Big O. Well, one of the Big O's. The dairy industry has successfully convinced us that we must have a high calcium intake to prevent osteoporosis. And of course, since dairy is pretty much the highest calcium food there is, we should take in lots of milk, cheese, and ice cream. That the dairy industry has a vested interest in the dairy equals calcium equals no osteoporosis equation never seems to cross anyone's mind. So I'll just say it – what's the *real* story? The real story is that, once again, it's much more complicated than just taking in more of one mineral. Osteoporosis is based on not only calcium intake, but also on vitamin D intake, magnesium intake, load bearing activity, and the acid-base balance of the diet. If it were as simple as taking in more calcium, we'd be in luck; Americans have one of the highest calcium intakes in the world. Unfortunately, we also have one of the highest rates of osteoporosis. Something does not compute.

The bones are not simply inanimate sticks upon which to hang skin and muscle; the cells that make up your bone structure die and are reborn just like those that make up your skin. And it's a good thing too, otherwise people that break a bone would be out of luck. Osteoclasts manage the breakdown and reabsorption of bone, while osteoblasts manage the formation of bone. A very high calcium intake is useless if your calcium balance is out of whack. Calcium balance is the difference between calcium intake and calcium usage. If your body is using more calcium than you are providing through diet, problems will develop. But that doesn't necessarily mean that "more is better." A calcium intake of 300mg per day is fine if the body requires only 250mg, leaving a net positive intake of 50mg. A calcium intake of the RDA 1000mg is not good if the body is in need of 1100mg, leaving 100mg to be made up from somewhere else in the body.

So what influences calcium balance? One major factor in calcium balance is the acid-base balance of the diet. The body functions best at a pH of around 7.4, just slightly alkaline. Given that, it follows that the body will strive to neutralize a net acid load by buffering it. Unfortunately, the largest source of buffering material in the body is bone, so the body will leach bone to neutralize this acid, returning the body to its proper pH. All foods fall into one of three categories: net acid producing, net alkaline producing, or neutral.^{76,77} Acid-producing foods are meat and fish, dairy, and grains. Alkaline-producing foods are fruits and vegetables. Fats are typically neutral or just slightly to one side or the other. So we see that reducing the acid load of our diet is important and we know that meat, fish, dairy, and grains are the main sources of acid in the diet. We also know that grass-fed meat and wild seafood are the cornerstones of a healthy diet, forming the base of the Paleolithic diet that humans ate throughout evolution. Also, I've shown you why dairy and grains are not necessary components of a healthy diet, yet they, along with meat, are amongst the most consumed foods in the American diet. A logical conclusion from that is that dairy and grains contribute adversely to the acid-base balance, and subsequently to the calcium balance, of the body. Some disingenuous folks will tell you that a high-protein diet leads to osteoporosis, but is it the protein or is it the addition of dairy and grains on top of it all that swamps the body's ability to neutralize the acid? A high-protein diet with plenty of alkalizing vegetables and fruits will not lead to osteoporosis, as our ancestral record attests. In fact, studies have shown higher protein intakes to correlate with less bone loss.⁷⁸

Certain vitamins and minerals also play an important role in bone health. Vitamin D has been shown to be protective against hip fractures, even when milk and high-calcium diets didn't. Harvard's Nurse's Health Studies found a 40% lower risk of hip fracture amongst women who consumed over 500IU of vitamin D per day. Vitamin D serves to stimulate the absorption of calcium and phosphorus in the intestines. Vitamin K helps produce one of the main proteins of bone. Magnesium is another important component of bone and daily intake should be equal to or greater than calcium intake. A high calcium intake can actually lead to urinary loss of magnesium, which is also important for heart health. Drs. Michael and Mary Eades point out in their book [The Protein Power Lifeplan](#) that hunter-gatherers are estimated to have taken in about 1200-1500mg of both calcium and magnesium, whereas modern Americans take in only 200-300mg of magnesium for our 1200-1500mg of calcium.⁷⁹ Potassium helps to prevent urinary loss of calcium and magnesium. Coincidentally, great dietary sources of magnesium, potassium, and vitamins D and K fit into a Paleolithic diet. Magnesium comes mainly from nuts, seeds, and vegetables, potassium from fruits, vegetables, and meat, and vitamin D from fatty fish, eggs, and

liver.⁸⁰ Vitamin K can be found in lettuce and broccoli; in fact, only 1 cup of broccoli per day provides three times the RDA of vitamin K.

There are numerous other lifestyle factors that can contribute to bone loss, namely smoking and high intake of alcohol, coffee, tea, and salt. Also, a lack of load-bearing activity will cause the “use it or lose it” body to do away with that which is not needed, namely bones and muscles. The body has to exert energy maintaining tissue. Bone and muscle are expensive when compared to fat tissue, therefore, the body will breakdown bone and muscle if it finds that they are not needed. And when it comes to such food products as calcium-fortified orange juice, consider that they are simply using a synthetic form of the mineral. Drinking calcium-fortified orange juice is no different than taking a calcium supplement and drinking a glass of non-calcium-fortified orange juice.

On the other hand, Jonathon Miller tells us that “There is a significant correlation between high levels of fruit and vegetable intake and bone density, unlike the NEGATIVE correlation with consuming dairy products and poor quality calcium supplements.”⁸¹ In the Nurse’s Health Study, women who drank milk twice a day were just as likely to suffer a fracture as those who drank it once a week.⁸² Too much calcium can also promote arthritis and arterial plaques.^{83,84}

So it’s obvious that the dairy campaign to get us to increase our calcium intake to prevent osteoporosis is helping no one but the dairy industry. Americans really need to focus more on reducing the intake of acid-producing grains and dairy, take in more magnesium, potassium, vitamin D, vitamin K, and phosphorus, and lead an active lifestyle. All the calcium in the world can’t overcome a lack of the other essential bone building materials and a stimulus that tells the body to build bone.

Conclusion

I suppose I should end this long ramble. If you made it this far, you must lead an incredibly boring life. If you didn’t make it this far...well, nevermind. Essentially, proper nutrition boils down to looking at our evolutionary past. However, in the mainstream media, you won’t hear anything related to Paleolithic nutrition. You won’t hear that humans have been eating fat-rich meats for thousands of millennia. You also won’t hear that humans have been eating seasonal fruits and vegetables for those same many millennia. Humans have not had ready access to sugar, processed grains, pasteurized milk, man-made fats (*trans* fats), artificial sweeteners, and grain-fed meats until the last 8,000 or so years. Furthermore, many of the foods we do eat are not prepared in traditional ways, much to our detriment. Grains are not prepared in such a way as to neutralize the phytic acid and other antinutrients. Milk is pasteurized, rendering lifeless what was essentially a living food.

Many people get their nutrition information from whatever comes up on the evening news or appears in the newspaper. Yet, the mainstream media is primarily concerned with stories that sell, not with accuracy. Every time a study is touted as being “the cure for this” or “the fix for that”, think long and hard about what the person is trying to sell you. As we’ve seen here, most studies are cherry-picked to provide the results that the study sponsor wanted to see. Many news stories are setup with the conclusion written, then the data is dredged to find that which fits, discarding that which does not. Often times, researchers come to conclusions that are totally at odds with what the data actually showed.

So what are we to believe? The simple answer is to do your own reading and experimenting. Read books on nutrition. Read the many websites that are out there and come to *logical* conclusions. Everyone is so indoctrinated to believe that fat is bad and/or saturated fat is a killer that to think or read something to the contrary requires a grand leap of faith. When it comes down to it, you can always try changing your diet and see how your body reacts over the course of a month. Remove grains or dairy. Go as low-fat as possible, then try high-fat from good oils, nuts, avocados, etc. Try the saturated tropical oils, palm and coconut. Eat your meat with the fat. Eat vegetables until you feel like you’re going to explode. All of the literature in the world pales in comparison to seeing how your body reacts to the diet you give it. Even if you think you’ve “got it”, try something new – you just may be surprised.

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